## INDIANA PROJECT WET



# State Science Standards Correlation to Activities

Please use the following correlations of the Project WET activities to the Indiana State Science Standards for your planning needs.

Project WET provides workshops throughout the state, and they can Be designed to meet your grade level or group needs.

Correlations will be available on line at:

projectwet.in.gov

Questions:

317-562-0788

<a href="mailto:projectwet@dnr.IN.gov">projectwet@dnr.IN.gov</a>

Indiana Project WET

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THIRD THRU FIFTH GRADE

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### **Project WET Activities correlated** to the Indiana State Science Standards

Page	Project WET Activity
. ugo	1 Tojour HET Addrity
3	Check It Out! Explore a variety of performance assessment strategies
7	Idea Pools Become familiar with pre-assessment strategies
9	Let's Work Together Use cooperative learning strategies
12	Water Action Propose, analyze, and implement action strategies
19	Water Log Assess student learning through a journal of portfolio
25	Adventures in Density Experiment with density and explore examples of density in classic literature
30	<i>H₂Olympics</i> Compete in a water Olympics to investigate adhesion and cohesion
35	Hangin' Together Mimic hydrogen bonding in surface tension, ice formation, evaporation, ad solutions
43	Is There Water on Zork? Test the properties of water
47	Molecule in Motion Simulate molecular movement in water's three states
50	Water Match Match water picture cards and discover the three states of water
54	What's the Solution Solve a crime while investigating the dissolving power of water
63	Aqua Bodies Estimate the amount of water in a person, a cactus, or a whale
66	Aqua Notes Sing to discover how the human body uses water
72	Let's Even Things Out Demonstrate osmosis and diffusion
76	Life Box (The) Discover the elements essential to life
79	Life in the Fast Lane Explore Temporary wetlands
85	No Bellyachers Show how pathogens are transmitted by water by playing a game of tag
89	People of the Bog Construct a classroom bog
93	Poison Pump Solve a mystery about a waterborne disease
99	Salt Marsh Players Role-play organisms adapted to life in a salt marsh
107	Super Sleuths Search for others who share similar symptoms of a waterborne disease
116	Thirsty Plants Demonstrate transpiration and conduct a field study
122	Water Address Analyze clues to match organisms with water-related adaptations
129	Branching Out! Construct a watershed model
133	Capture, Store, and Release Use a household sponge to demonstrate how wetlands get wet and how they contribute to a watershed
136	Get the Ground Water Picture Create an "earth window" to investigate ground water systems
144	Geyser Guts Demonstrate the workings of a geyser
150	Great Stony book (The) Create layers of buried fossils and read a great stony book
155	House of Seasons (A) Create a collage that peeks through a "window" to reveal the role of water in each season
157	Imagine! Imagine a water molecule on its water journey
161	Incredible Journey (The) Simulate the movement of water through Earth's systems
166	Just Passing Through Mimic the movement of water down a slope

171	Old Water Create a mural that relates events to the age of Earth, water, and life
Page	Project WET Activity
174	Piece It Together Explore global climates and their influence on lifestyles
182	<b>Poetic Precipitation</b> Simulate cloud formation and express feelings toward precipitation through poetry
186	Rainy -Day Hike Explore schoolyard topography and its effect on the watershed
191	Stream Sense Develop sensory awareness of a stream
196	Thunderstorm (The) Simulate the sounds of thunderstorm and create precipitation maps
201	Water Models Construct models of the water cycle and adapt them for different biomes
206	Wet Vacation Plot data to determine weather patterns and design appealing travel brochures
212	Wetland Soils in Living Color Classify soil types using a simple color key
219	A-maze-ing Water Negotiate a maze to investigate nonpoint source pollution
223	Color Me a Watershed Interpret maps to analyze changes in a watershed
232	Common Water Demonstrate that water is a shared resource
238	Drop in the Bucket (A) Calculate the availability of fresh water on Earth
242	Energetic Water Design devices to make water do work
246	Great Water Journeys Use clues to track great water journey of plants, people, and other animals on a map
254	Irrigation Interpretation Model different irrigation systems
260	Long Haul (The) Haul water to appreciate the amount of water used daily
262	Nature Rules! Write news stories based on natural, water-related disasters
267	Sum of the Parts Demonstrate nonpoint source pollution
271	Water Meter Construct a water meter and keep track of personal water use
274	Water Works Create a web of water users
279	Where Are the Frogs Run a simulation and experiment to understand the effects of acid rain
289	AfterMath Assess economic effects of water-related disasters
293	Back to the Future Analyze streamflow data to predict floods and water shortages
300	<b>CEO (The)</b> Become a Chief executive Officer (CEO) and learn about business/corporate water management challenges
303	<b>Dust Bowls and Failed Levees</b> Witness, through literature, the effects of drought and flood on human populations
307	Every Drop Counts Identify and implement water conservation habits
311	Grave Mistake (A) Analyze data to solve a ground water mystery
316	<b>Humpty Dumpty</b> Simulate a restoration project by putting the pieces of an ecosystem back together
322	<b>Macroinvertebrate Mayhem</b> Illustrate, through a game of tag, how macroinvertebrate populations indicate water quality
328	Money Down the Drain Observe and calculate water waste from a dripping faucet
333	Price is Right (The) Analyze costs for building a water development project
338	Pucker Effect (The) Simulate ground water testing to discover the source of contamination
344	Reaching Your Limits "Limbo" to learn basic water quality concepts and standards development
348	Sparkling Water Develop strategies to clean wastewater
	To the state of th

353	Super Bowl Surge Develop a strategy to accommodate the demands on a wastewater treatment plant
Page	Project WET Activity
360	Wet-Work Shuffle Sequence the water careers involved in getting water to and from the home
367	Choices and Preferences, Water Index Develop a "water index" to rank water uses
373	Cold Cash in the Icebox Create a mini-insulator to prevent an ice cube from melting
377	Dilemma Derby Examine differing values in resolving water resource management dilemmas
382	Easy Street Compare quantities of water used in the late 1800s to the present
388	Hot Water Debate water issues
392	Pass the Jug Simulate water rights policies with a "jug" of water
397	Perspectives Identify values to solve water management issues
400	Water: Read All About It! Develop a Special Edition on water
403	Water Bill of Rights Create a document to guarantee the right to clean and sustainable water resources
407	Water Concentration Play concentration and discover how water use practices evolve
413	Water Court Participate in a mock court to settle water quality and quantity disputes
421	Water Crossings Simulate a water crossing and relate the historical significance of waterways
425	What's Happening? Conduct a community water use survey
429	Whose Problem Is It? Analyze the scope and duration of water issues to determine personal and global significance
435	Raining Cats and Dogs Discover how water proverbs vary among culture and climates
442	Rainstick (The) Build an instrument that imitates the sound of rain
446	Water Celebration Organize a water celebration with activities from this guide
450	wAteR in motion Create artwork that simulates the movement and sound of water in nature
454	Water Message in Stone Replicate ancient rock art, creating symbols of water
457	Water Write Explore feelings about and perception of water topics through writing exercises
460	Wish Book Compare recreational uses of water in the late 1800s and the present

	The Nature	Scientific	The Physical	The Living	The	Common
	of Science	Thinking	Setting	Environment	Mathematica Mathematica	Themes
	and	Immang	Setting	Environment	l World	Themes
	Technology				1 ,, 0110	
ACTIVITY						
Adventures	3.1.2	3.2.3				
in Density	3.1.3	3.2.4				
(25)	3.1.4, 3.1.5	3.2.6, 3.2.7				
AfterMath	3.1.2, 3.1.3	3.2.1	3.3.6			
(289)	3.1.4, 3.1.5					
A-maze-ing	3.1.2, 3.1.4	3.2.5				
Water (219)	3.1.5, 3.1.8	3.2.6				
Aqua Bodies	3.1.2, 3.1.3	3.2.4		3.4.6		
(63)	3.1.4	3.2.6				
Aqua Notes (66)				3.4.6		
Back to the	3.1.2, 3.1.3	3.2.4	3.3.5	3.4.6	3.5.1	3.6.4
Future (293)	3.1.4, 3.1.5	3.2.7	3.3.6		3.5.3	
Capture,	3.1.2	3.2.2			3.5.1	
Store, &	3.1.3	3.2.4			3.5.5	
Release	3.1.4	3.2.5				
(133)	0.1.0.0.1.0	3.2.7			2.7.1	2.5.4
Cold Cash in	3.1.2, 3.1.3	3.2.2			3.5.1	3.6.4
the Icebox	3.1.4, 3.1.5	3.2.4				3.6.5
(373)	3.1.6	3.2.6, 3.2.7				
Common	3.1.2, 3.1.4	3.2.7				
Water (232)	3.1.5, 3.1.8			3.4.6	3.5.1	3.6.4
A Drop in the Bucket				3.4.0	3.5.1	3.0.4
(238)					3.3.3	
Easy Street	3.1.2, 3.1.3	3.2.1		3.4.6		3.6.4
(382)	3.1.4, 3.1.6	3.2.7		3.1.0		3.0.1
Energetic	3.1.2, 3.1.4	3.2.5	3.3.8			
Water (242)	3.1.5, 3.1.6	3.2.7	2.0.0			
Geyser Guts	3.1.2	3.2.7				3.6.1
(144)	3.1.4					3.6.5
H20	3.1.1, 3.1.2	3.2.1, 3.2.2			3.5.1	
Olympics	3.1.3, 3.1.4	3.2.4, 3.2.5			3.5.2	
(30)	3.1.5	3.2.6, 3.2.7			3.5.3	
Every Drop	3.1.2	3.2.3			3.5.1	3.6.4
Counts	3.1.3	3.2.4			3.5.3	
(307)	3.1.4	3.2.5, 3.2.6				
Hangin'	3.1.2	3.2.6				
Together	3.1.4	3.2.7				
(35)	3.1.5					2.55
Humpty	3.1.2, 3.1.3	3.2.3				3.6.2
Dumpty	3.1.4, 3.1.5	3.2.4				3.6.5
(316)	3.1.8	3.2.5, 3.2.6				2.6.4
Imagine!	3.1.2	3.2.3				3.6.4
(157) The	3.1.3, 3.1.4 3.1.2	3.2.6 3.2.3				
Incredible	3.1.2	3.2.3				
Journey	3.1.4					
(161)	ر.1.					
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Irrigation	312	324				
Irrigation Interpretatio	3.1.2 3.1.4	3.2.4 3.2.5				

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	The Nature	Scientific	The Physical	The Living	The	Common
	of Science	Thinking	Setting	Environment	Mathematica	Themes
	and				l World	
	Technology					
ACTIVITY						
Is there	3.1.1, 3.1.2	3.2.2				
Water on	3.1.3, 3.1.4	3.2.4				
Zork? (43)	3.1.5	3.2.6, 3.2.7				
Just Passing	3.1.2.	3.2.7	3.3.5			3.6.5
Through	3.1.4					
(166)	3.1.5					
Let's Even	3.1.2	3.2.6				
Things Out	3.1.3					
(72)	3.1.5					
Let's Work	3.1.5					
Together (9) The Life	2 1 2	2 2 7		2.4.4		
Box (76)	3.1.2 3.1.4	3.2.7		3.4.4 3.4.6		
Life in the	3.1.4	3.2.3		3.4.0		3.6.4
Fast Lane	3.1.2	3.2.3				3.6.5
(79)	3.1.4, 3.1.5	3.2.7				3.0.3
The Long	3.1.2, 3.1.4					
Haul (260)	3.1.2, 3.1.4					
Macro-	3.1.2			3.4.1		
invertebrate	3.1.4			3.4.6		
(322)	3.1.5			5		
Molecules in	3.1.2, 3.1.3	3.2.3				
Motion (47)	3.1.5	3.2.6				
Money	3.1.2, 3.1.3		3.2.1		3.5.1	
Down the	3.1.4, 3.1.5		3.2.2			
Drain (328)						
No	3.1.2			3.4.7		
Bellyachers	3.1.4			3.4.8		
(85)	3.1.5			3.4.9		
Old Water	3.1.2, 3.1.3	3.2.4, 3.2.5	3.3.5			3.6.5
(171)	3.1.4, 3.1.5	3.2.6				
Pass the Jug	3.1.2, 3.1.4	3.2.7	3.3.8			
(392)	3.1.5					
Piece It	3.1.2	3.2.7		3.4.6		
Together	3.1.4					
(174)	3.1.5	225			2.5.6	2.5.1
Poetic	3.1.2	3.2.3			3.5.1	3.6.4
Precipitation	3.1.3	3.2.4				3.6.5
(182)	3.1.4, 3.1.5	3.2.5, 3.2.7		2.4.9		
Poison	3.1.2, 3.1.4			3.4.8		
Pump (93)	3.1.5	1		3.4.9		
Raining Cats	3.1.5					
and Dogs (435)						
The Rain		3.2.5	3.3.9			
stick (442)		3.2.3	3.3.9			
Rainy-Day	3.1.2, 3.1.3	3.2.3	3.3.5	3.4.6	3.5.1	
Hike (186)	3.1.2, 3.1.3	3.2.3	3.3.3	3.4.0	3.3.1	
111KC (160)	3.1.4, 3.1.3	3.2.6, 3.2.7				
Reaching	3.1.2	3.2.6		3.4.6	3.3.1	
Your Limits	3.1.4	3.2.7		3.7.0	3.5.5	
(344)	3.1.5	3.2.7			3.3.3	
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	The Nature of Science	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematica	Common Themes
	and	Timming	Setting	Zirrioiiiieii	l World	Thomas
A CITIZITINI	Technology					
ACTIVITY	212214	226	3.3.1	2.4.6		2.65
Salt Marsh	3.1.2, 3.1.4 3.1.5	3.2.6	3.3.1	3.4.6		3.6.5
Players (99)	3.1.2, 3.1.3	3.2.2, 3.2.4	3.3.3	3.4.6, 3.4.8		
Sparkling Water (348)	· ·	· ·		· ·		
	3.1.4, 3.1.5 3.1.2, 3.1.3	3.2.6, 3.2.7		3.4.9 3.4.9		
Stream Sense (191)	3.1.2, 3.1.3	3.2.5		3.4.9		
Sum of the	3.1.4, 3.1.3	3.2.7				
Parts (267)	3.1.2, 3.1.4	3.2.1				
Super Bowl	3.1.2					
Surge (353)	3.1.4, 3.1.5					
The	3.1.4, 3.1.3	3.2.1	3.3.5		3.5.1	
Thunderstor	3.1.4, 3.1.5	3.2.6	3.3.3		3.5.2	
m (196)	3.1.4, 3.1.3	3.2.0			3.3.2	
Water	3.1.2	3.2.6		3.4.6		
Address	3.1.2	3.2.0		3.4.0		
(122)	3.1.4					
Water Bill	J.1.J			3.4.6		
of Rights				3.4.0		
_						
(403) Water	3.1.5	3.2.5	3.3.9			
Celebration	3.1.3	3.2.3	3.3.9			
(446) Water	3.1.2	3.2.6		3.4.8		3.6.5
Concentratio	3.1.3	3.2.0		3.4.8		3.0.3
	3.1.6	3.2.7		3.4.9		
n (407)	3.1.8					
Water	3.1.2, 3.1.4	3.2.4				3.6.3
Crossings	3.1.5	3.2.4				3.0.3
(421)	3.1.6	3.2.6				
Water Log	3.1.3	3.2.3				
(19)	3.1.3	3.2.6				
wAteR in	3.1.2	3.2.2, 3.2.4				3.6.1
moTion	3.1.4	3.2.5, 3.2.6				3.0.1
(450)	3.1.5	3.2.7				
Water	3.1.2	J.L.1				
Match (50)	3.1.2					
Water	3.1.5	3.2.6				
Messages	3.1.3	3.2.0				
(454)						
Water Meter	3.1.2, 3.1.3	3.2.1		3.4.6	3.5.1	3.6.4
(271)	3.1.4, 3.2.5	3.2.3		3.1.3	3.5.3	3.0.1
Water	3.1.2	3.2.2, 3.2.4			3.5.1	3.6.4
Models	3.1.3	3.2.5, 3.2.6			3.3.1	3.0.1
(201)	3.1.4	3.2.7				
Water	3.1.2, 3.1.4	3.2.6	3.3.8			
Works (274)	3.1.5	3.2.7	3.5.5			
Water Write	3.1.5	2.2.7				
(457)	3.1.3					
Wish Book	3.1.6			3.4.2		
(460)	5.1.0			3.7.2		
(100)	I	1	1	1	1	<u>I</u>

	The Nature of	Scientific	The	The Living	The	Common
	Science and	Thinking	Physical	Environment	Mathematical	Themes
	Technology		Setting		World	
ACTIVITY						
Wet-Work	3.1.2, 3.1.3	3.2.3				3.6.1
Shuffle (360)	3.1.4					
	3.1.6					
Wetland Soils	3.1.2, 3.1.3	3.2.4,		3.4.1		
(212)	3.1.4, 3.1.5	3.2.6		3.4.2		
		3.2.7				
What's	3.1.2	3.2.6				
Happening?	3.1.3	3.2.7				
(425)	3.1.4, 3.1.5					
What's the	3.1.2	3.2.6				3.6.5
Solution? (54)	3.1.3	3.2.7				
	3.1.4, 3.1.5					

#### **Fourth Grade**

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY	reciniology		Detting		World	
Adventures in		4.2.5			4.5.4	
Density (25)		4.2.7				
AfterMath		4.2.4				
(289)		4.2.5,				
		4.2.6				
A-maze-ing Water (219)		4.2.5				4.6.3
Aqua Bodies (63)	4.1.5	4.2.4 4.2.5				
Aqua Notes (66)			4.3.13			
Back to the	4.1.5	4.2.4	.4.3.5		4.5.4	
Future (293)		4.2.7				
Capture, Store,	4.2.5	4.2.4				
& Release		4.2.5				
(133)		4.2.7				
Cold Cash in	4.1.5	4.2.4	4.3.13			
the Icebox	4.1.7	4.2.5				
(373)	4.1.8	4.2.7				
Common Water (232)		4.2.7				
A Drop in the	4.1.5	4.2.4	4.3.3			
Bucket (238)	4.1.5	4.2.1	7.5.5			
Easy Street	4.1.7	4.2.4				
(382)						
Energetic	4.1.4	4.2.7		4.4.7		
Water (242)	4.1.8					
Geyser Guts		4.2.5	4.3.13			4.6.1
(144)		4.2.7	4.3.5,			4.6.3
			4.3.6			
H20 Olympics	4.1.2	4.2.4				
(30)	4.1.5	4.2.5 4.2.7				
Every Drop	4.1.5	4.2.1			4.5.4	
Counts (307)	7.1.3	4.2.1			7.5.4	
2041165 (307)		4.2.5				
Hangin'		4.2.5	4.3.13			
Together (35)		4.2.7	4.3.16			
			4.3.5			
Humpty		4.2.5				4.6.1
Dumpty (316)						4.6.2
Imagine! (157)		4.2.4	4.3.13			
TT 1 1111		4.2.5	1010			
The Incredible		4.2.5	4.3.13			
Journey (161)			1	117		
Irrigation Interpretation				4.4.7		
(254)						
(434)		1		<u> </u>		1

	The Nature of	Scientific	The	The Living	The	Common
	Science and Technology	Thinking	Physical Setting	Environment	Mathematical World	Themes
ACTIVITY	recimiology		Betting		,, olla	
Is there Water	4.1.5	4.2.5				
on Zork? (43)		4.2.7				
Just Passing		4.2.7	4.3.5			
Through (166)		,				
Let's Even		4.2.5		4.4.1		
Things Out				4.4.7		
(72)						
The Life Box		4.2.7	4.3.2,			
(76)			4.3.7			
			4.3.13			
Life in the	4.1.5	4.2.4				
Fast Lane (79)		4.2.5				
The Long	4.1.7			4.4.7		
Haul (260)						
Macro-		4.2.4				
invertebrate						
(322)						
Molecules in		4.2.5	4.3.13			
Motion (47)						
Money Down	4.1.5	4.2.1				4.6.2
the Drain		4.2.4				4.6.3
(328)						
No				4.4.10		
Bellyachers						
(85)						
Old Water		4.2.4			4.5.4	4.6.4
(171)						
Pass the Jug (392)		4.2.7				
Piece It		4.2.7	4.3.4			
Together		4.2.7	4.3.4			
(174)			4.3.13			
Poetic	4.1.5	4.2.4				
Precipitation	4.1.3	4.2.5				
(182)		4.2.7				
Poison Pump	4.1.4	4.2.4		4.4.10		
(93)	4.1.7	4.2.4		4.4.11		
Rainy-Day	4.1.5	4.2.4,		1.1.11		
Hike (186)	4.1.9	4.2.4,				
111110 (100)	1.1.7	4.2.6,				
		4.2.7				
Reaching	4.1.5	4.2.1				
Your Limits		4.2.4				
(344)		4.2.7				
Salt Marsh		4.2.5	4.3.2			4.6.1
Players (99)			4.3.3			4.6.4
Sparkling	4.1.7	4.2.5				4.6.1
Water (348)	4.1.9	4.2.7				
Stream Sense		4.2.5				
(191)						
Sum of the	4.1.9	4.2.7				
Parts (267)		4.2.6				
\/	1		1	1	1	1

	The Nature of Science and	Scientific Thinking	The Physical	The Living Environment	The Mathematical	Common Themes
	Technology		Setting		World	
ACTIVITY						
The		4.2.1				
Thunderstorm (196)		4.2.4				
Water Address		4.2.5				
(122)		4.2.6				
Water	4.1.7	4.2.5		4.4.7		
Concentration		4.2.6				
(407)		4.2.7				
Water	4.1.2	4.2.6				4.6.3
Crossings	4.1.5					
(421)	4.2.7					
Water Log (19)		4.2.5				
wAteR in		4.2.7				4.6.1
moTion (450)						
Water	4.1.3			4.4.8		
Messages						
(454)						
Water Meter		4.2.1				
(271)		4.2.4				
Water Models	4.1.5	4.2.4	4.3.2			
(201)		4.2.5	4.3.13			
		4.2.7				
Water Works	4.1.9	4.2.5			4.5.4	
(274)		4.2.7				
Wet-Work	4.1.3	4.2.5				4.6.1
Shuffle (360)	4.1.5					
	4.1.7					
Wetland Soils		4.2.4				
(212)		4.2.5,				
		4.2.7				
What's	4.1.3	4.2.4				
Happening?		4.2.5				
(425)		4.2.6,				
		4.2.7				
What's the		4.2.5	4.3.16			
Solution? (54)		4.2.7				

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY						
Adventures in Density (25)		5.2.4 5.2.7 5.2.8	5.3.4 5.3.8 5.3.12			5.6.2
AfterMath (289)	5.1.2				5.5.7	5.6.2
A-maze-ing Water (219)	5.1.6					
Aqua Bodies (63)				5.4.2	5.5.1	
Aqua Notes (66)			5.3.4 5.3.8, 5.3.9	5.4.2		
Back to the Future (293)	5.1.3 5.1.4	5.2.1 5.2.2, 5.2.5			5.5.1 5.5.7, 5.5.8	5.6.2 5.6.4
Capture, Store, & Release (133)	5.1.3 5.1.6	5.2.4			5.5.1 5.5.7	
Cold Cash in the Icebox (373)	5.1.1 5.1.5	5.2.4	5.3.4, 5.3.8 5.3.9 5.3.10		5.5.1	5.6.4
Common Water (232)	5.1.6	5.2.8				5.6.1
A Drop in the Bucket (238)		5.2.1 5.2.2		5.4.2 5.4.4		5.6.2
Easy Street (382)	5.1.3 5.1.5	5.2.4 5.2.8		5.4.2		5.6.2
Energetic Water (242)	5.1.1 5.1.3	5.2.3	5.3.6 5.3.11 5.3.13			
Geyser Guts (144)	5.1.1, 5.1.3 5.1.6		5.3.4, 5.3.8 5.3.9		5.5.8	5.6.1 5.6.2, 5.6.4
H20 Olympics (30)	5.1.1	5.2.2, 5.2.3 5.2.4, 5.2.7 5.2.8	5.3.6 5.3.13		5.5.1	
Every Drop Counts (307)		5.2.1, 5.2.2 5.2.3 5.2.4			5.5.1	5.6.2
Hangin' Together (35)		5.2.7	5.3.4 5.3.8			
Humpty Dumpty (316)	5.1.6	5.2.4		5.4.5		5.6.1 5.6.4
Imagine! (157)		5.2.4	5.3.6 5.3.8			5.6.1
				5.4.2		5.6.1

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY						
The Incredible Journey (161)		5.2.4	5.3.4 5.3.5 5.3.6 5.5.8	The Incredible Journey (161)		5.2.4
Irrigation Interpretation (254)	5.1.5	5.2.3				
Is there Water		5.2.6 5.2.7	5.3.4			
on Zork? (43) Just Passing		3.2.1	5.3.8	5.4.5		5.6.4
Through (166)				3.4.3		3.0.4
Let's Even Things Out (72)	5.1.4					5.6.2
The Life Box (76)				5.4.2		
Life in the Fast Lane (79)		5.2.4			5.5.1	5.6.4
The Long Haul (260)	5.1.3					
Macro-	5.1.3			5.4.2		
invertebrate (322)	5.1.6			5.4.5		
Molecules in Motion (47)		5.2.4	5.3.4 5.3.8			
Money Down the Drain (328)		5.2.1 5.2.2 5.2.5, 5.2.7			5.5.1	5.6.1
No Bellyachers (85)	5.1.3			5.4.6		
Old Water (171)		5.2.2				5.6.2 5.6.4
Pass the Jug (392)			5.3.4 5.3.8			
Piece It Together (174)				5.4.4		
Poetic Precipitation (182)	5.1.3	5.2.4	5.3.4 5.3.5 5.3.8		5.3.1	5.6.4
Poison Pump (93)	5.1.3					
The Rainstick (442)		5.2.3				
Rainy-Day Hike (186)	5.1.3 5.1.6	5.2.1 5.2.2, 5.2.4		5.4.2	5.5.1 5.5.7, 5.5.8	5.6.2
Reaching Your Limits (344)	5.1.3 5.1.4 5.1.5, 5.1.6	5.2.1 5.2.2		5.4.2 5.4.5		
Salt Marsh Players (99)			5.3.6 5.3.11 5.3.13	5.4.2 5.4.4 5.4.5, 5.4.7		5.6.1 5.6.4

	The Nature of Science and	Scientific Thinking	The Physical	The Living Environment	The Mathematical	Common Themes
ACTIVITY	Technology		Setting		World	1
Sparkling	5.1.3	5.2.4	+	5.4.2		5.6.1
Water (348)	5.1.5, 5.1.6	5.2.4		5.4.4, 5.4.5		3.0.1
Sum of the	5.1.3	3.2.7		3.4.4, 3.4.3		
Parts (267)	5.1.5, 5.1.6					
Super Bowl	5.1.3					
Surge (353)						
The	5.1.3	5.2.1	5.3.11		5.5.1	5.6.4
Thunderstorm		5.2.2			5.5.7	
(196)					5.5.8	
Water Address				5.4.2		
(122)				5.4.4		
				5.4.5, 5.4.7		
Water Bill of				5.4.2		
Rights (403)						
Water		5.2.3				
Celebration						
(446) Water	5.1.5		+			5.6.2
Concentration	5.1.6					5.6.4
(407)	3.1.0					3.0.4
Water	5.1.1	5.2.3				5.6.2
Crossings	5.1.5	3.2.3				3.0.2
(421)	3.1.3					
Water Log (19)		5.2.4				
wAteR in		5.2.3	5.3.6			5.6.1
moTion (450)			5.3.13			
Water Match			5.3.4			
(50)			5.3.5,			
			5.3.8			
Water					5.5.7	5.6.2
Messages						
(454)						
Water Meter		5.2.1,			5.5.1	
(271)		5.2.2				
		5.2.4,				
Water Models	5.1.1	5.2.5 5.2.7	5.3.4	5.4.4	5.5.1	
(201)	5.1.1	5.2.7	5.3.4	5.4.7	3.3.1	
(201)		3.2.6	5.3.8	3.4.7		
Water Works	5.1.3		3.3.0			5.6.2
(274)	3.1.3					3.0.2
Wish Book	5.1.5					
(460)						
Wet-Work	5.1.3					5.6.1
Shuffle (360)	5.1.4					
· · ·	5.1.5		<u> </u>			
Wetland Soils		5.2.2,			5.5.1	
(212)		5.2.4				
		5.2.5,				
		5.2.7				
What's		5.2.4				5.6.2
Happening?						
(425)			1			T. C. A.
What's the						5.6.4
Solution? (54)		1	1			1

#### The Nature of Science and Technology

Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.

#### The Scientific View of the World

3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.

WET Activities (page): 30,43

#### Scientific Inquiry

Participate in different types of guided scientific investigations such as observing objects and events and collecting specimens for analysis.

**WET Activities (page):** 25, 30, 35, 43, 47, 50, 54, 63, 72, 76, 79, 85, 93, 99, 122, 133, 144, 15, 161, 166, 171, 174, 182, 186, 191, 196, 201, 212, 219, 232, 242, 254, 260, 267, 271, 274, 293, 307, 316, 322, 328, 344,348, 360,373, 382, 392, 407, 421, 450

3.1.3 Keep and report records of investigations and observations\* using tools, such as journals, charts, graphs, and computers.

**WET Activities (page):** 19, 25, 30, 43, 47, 50, 72, 79, 157, 171, 182, 186, 191, 196, 201, 212, 271, 289, 293, 307, 316, 328, 348, 360, 373, 382, 407, 425

3.1.4 Discuss the results of investigations and consider the explanations of others.\*observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.

**WET Activities (page):** 25, 30, 35, 43, 54, 63, 76, 79, 85, 93, 99, 122, 133, 144, 157, 161, 166, 171, 174, 182, 186, 191, 196, 201, 212, 219, 232, 242, 254, 260, 267, 271, 274, 289, 293, 307, 316, 322, 328, 344, 348, 353, 360, 373, 382, 392, 421, 425, 450

#### The Scientific Enterprise

Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.

WET Activities (page): 254, 260, 360, 373, 382, 407, 460

#### Technology and Science

3.1.6 Give examples of how tools, such as automobiles, computers, and electric motors, have affected the way we live.

**WET Activities (page):** 9, 25, 30, 35, 43, 47, 54, 72, 79, 85, 93, 99, 122, 161, 166, 171, 174, 182, 186, 191, 196, 212, 219, 232, 242, 260, 267, 274,

289, 293, 316, 322, 328, 344, 345, 348, 353, 373, 392, 421, 425, 435, 446, 450, 454, 457

3.1.8 Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.

WET Activities (page): 50, 186, 219, 232, 267, 316, 407

#### Standard 2

#### **Scientific Thinking**

Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.

#### Computation and Estimation

3.2.1 Add and subtract whole numbers\* mentally, on paper, and with a calculator.\*whole numbers: 0,1,2,3, etc.

WET Activities (page): 30, 196, 271, 289, 382

#### Manipulation and Observation

3.2.2 Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.

WET Activities (page): 30, 43, 133, 201, 348, 373, 450

3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.

**WET Activities (page):** 25, 47, 79, 157, 182, 186, 191, 271, 307, 316, 360

3.2.4 Appropriately use simple tools, such as clamps, rulers, scissors, hand lenses, and other technology, such as calculators and computers, to help solve problems.

**WET Activities (page):** 25, 30, 43, 63, 79, 171, 182, 186, 201, 212, 254, 293, 307, 316, 348, 373, 421, 450

Construct something used for performing a task out of paper, cardboard, wood, plastic, metal, or existing objects.

**WET Activities (page):** 30, 133, 171, 182, 210, 219, 242, 254, 307, 316, 421, 442, 446, 450

#### Communication Skills

3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.

**WET Activities (page):** 19, 25, 30, 35, 43, 47, 54, 63, 72, 99, 122, 157, 171, 186, 191, 196, 201, 212, 219, 274, 307, 316, 344, 348, 373, 407, 421, 425, 450, 454

#### Critical Response Skills

3.2.7 Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.

**WET Activities (page)**: 25, 30, 35, 43, 47, 54, 76, 133, 144, 166, 174, 182, 186, 201, 212, 232, 242, 267, 274, 293, 344, 348, 373, 382, 392, 407, 425, 450

#### Standard 3

#### The Physical Setting

Students observe changes of Earth and the sky. They continue to explore the concepts of energy\* and motion\*.

#### The Universe

3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.

WET Activities (page): 99

The Earth and the Processes That Shape It

3.3.5 Give examples of how change, such as weather patterns, is a continual process occurring on Earth.

WET Activities (page): 99, 166, 171, 186, 196, 293

3.3.6 Describe ways human beings protect themselves from adverse weather conditions.

WET Activities (page): 289, 293

3.3.8 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels.

matter: anything that has mass and takes up space

\*mass: the amount of matter in an object

**WET Activities (page):** 242, 274, 292

#### Forces of Nature

3.3.9 Demonstrate that things that make sound do so by vibrating, such as vocal cords and musical instruments.

WET Activities (page): 442, 446

#### Standard 4

#### The Living Environment

Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.

#### Diversity of Life

3.4.1 Demonstrate that a great variety of living things can be sorted into groups in many ways using various features, such as how they look, where they live, and how they act, to decide which things belong to which group.

WET Activities (page): 212, 322

3.4.2 Explain that features used for grouping depend on the purpose of the grouping.

WET Activities (page): 212, 460

#### Interdependence of Life and Evolution

3.4.4 Describe that almost all kinds of animals' food can be traced back to plants.

WET Activities (page): 76

#### **Human Identity**

3.4.6 Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do.

**WET Activities (page)**: 63, 66, 76, 122, 174, 186, 238, 271, 293, 32, 344, 348, 382, 403

3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people to stay healthy.

WET Activities (page): 85

3.4.8 Explain that some things people take into their bodies from the environment can hurt them and give examples of such things.

WET Activities (page): 85, 93, 348, 407

3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that hand washing with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.

WET Activities (page): 85, 93, 191, 348, 407

#### Standard 5

#### The Mathematical World

Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.

#### Numbers

3.5.1 Select and use appropriate measuring units, such as centimeters (cm) and meters (m), grams (g) and kilograms (kg), and degrees Celsius (°C).

**WET Activities (page**): 30, 133, 182, 186, 196, 201, 238, 271, 293, 307, 328, 373

3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.

WET Activities (page): 30, 196

Shapes and Symbolic Relationships

3.5.3 Construct tables and graphs to show how values of one quantity are related to values of another.

WET Activities (page): 30, 238, 271, 293, 307

Reasoning and Uncertainty

3.5.5 Explain that one way to make sense of something is to think of how it relates to something more familiar.

WET Activities (page): 133, 344

#### Standard 6

#### **Common Themes**

Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.

#### Systems

3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.

**WET Activities (page)**: 144, 360, 450

3.6.2 Investigate how and describe that something may not work if some of its parts are missing.

WET Activities (page): 316

Constancy and Change

3.6.4 Take, record, and display counts and simple measurements of things over time, such as plant or student growth.

WET Activities (page): 79, 182, 201, 238, 271, 293, 307, 373, 382

3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.

WET Activities (page): 54, 79, 99, 144, 166, 171,182, 316, 373, 407

#### The Nature of Science and Technology

Students, working collaboratively, carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.

#### Scientific Inquiry

4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of plant growth, propose reasons for why these differences exist, using recorded information about investigations.

WET Activities (page): 30, 421

#### The Scientific Enterprise

4.1.3 Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.

WET Activities (page): 360,421,425,454

4.1.4 Describe how people all over the world have taken part in scientific investigation for many centuries.

WET Activities (page): 93,242

#### Technology and Science

4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.

**WET Activities (page):** 30, 43, 63, 79, 182, 186, 201, 238, 293, 307, 344, 360, 373, 382, 421

4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.

WET Activities (page): 93,260,348,360,373,382,407

4.1.8 Recognize and explain that any invention may lead to other inventions.

WET Activities (page): 242,373

4.1.9 Explain how some products and materials are easier to recycle than others.

WET Activities (page): 186, 267, 274

#### **Scientific Thinking**

Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations\* accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.

#### Computation and Estimation

4.2.1 Judge whether measurements and computations of quantities, such as length, area\*, volume\*, weight, or time, are reasonable.

WET Activities (page): 196, 238, 271, 307, 344, and 382

#### Communication Skills

4.2.4 Use numerical data to describe and compare objects and events.

> WET Activities (page): 30, 63, 79, 93, 133, 157, 171, 182, 186, 196, 201, 212, 238, 271, 289, 293, 307, 322, 344, 373, 382, 425

4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.

> WET Activities (page): 25, 19, 30, 35, 43, 54, 63, 72, 74, 79, 99, 122, 133, 144, 157, 161, 182, 186, 191, 201, 212, 219, 274, 289, 307, 316, 348, 360, 373, 407, 425

#### Critical Response Skills

4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.

WET Activities (page): 93, 122, 186, 267, 289, 407, 421, 425

Identify better reasons for believing something than "Everybody knows that 4.2.7 ..." or "I just know," and discount such reasons when given by others.

> WET Activities (page): 25, 30, 35, 43, 54, 76, 133, 144, 166, 174, 182, 186, 201, 212, 232, 242, 267, 274, 293, 344, 348, 373, 392, 407, 425, 450

#### Standard 3

#### The Physical Setting

Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motion\*, and energy\*.

The Earth and the Processes That Shape It

4.3.2 Begin to investigate and explain that air is a substance that surrounds us, takes up space, and whose movements we feel as wind.

WET Activities (page): 76, 99, 201

4.3.3 Identify salt as the major difference between fresh and ocean waters.

WET Activities (page): 99,238

4.3.4 Describe some of the effects of oceans on climate.

WET Activities (page): 174

4.3.5 Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion\* of rock and soil in some areas and depositing them in other areas.

WET Activities (page): 35, 144, 166, 293

4.3.6 Recognize and describe that rock is composed of different combinations of minerals.

WET Activities (page): 144

4.3.7 Explain that smaller rocks come from the breakage and weathering of bedrock and larger rocks and that soil is made partly from weathered rock, partly from plant remains, and also contains many living organisms.

WET Activities (page): 76

Matter\* and Energy

4.3.13 Observe and describe that things that give off heat, such as people, animals, and the sun.

WET Activities (page): 35,66,74,76,144,157 161,174,201,373

#### Forces of Nature

4.3.16 Investigate and describe that without touching them, material that has been electrically charged pulls all other materials and may either push or pull other charged material.

WET Activities (page): 35,54

#### Standard 4

#### **The Living Environment**

Students learn about an increasing variety of organisms — familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.

#### Diversity of Life

4.4.1 Investigate, such as by using microscopes, to see that living things are made mostly of cells.

WET Activities (page): 72

#### **Human Identity**

4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.

WET Activities (page): 72,242,254,260,407

4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.

WET Activities (page): 454

4.4.10 Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body's defenses.

WET Activities (page): 85,93

4.4.11 Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.

WET Activities (page): 93

#### Standard 5

#### The Mathematical World

Students apply mathematics in scientific contexts. Their geometric descriptions of objects are comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.

Shapes and Symbolic Relationships

4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.

WET Activities (page): 25,171,274,293,307

#### Standard 6

#### **Common Themes**

Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.

#### Systems

4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.

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#### WET Activities (page): 99,144,316,348,360,450

4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.

WET Activities (page): 316,382

#### Models and Scale

4.6.3 Recognize that and describe how changes made to a model can help predict how the real thing can be altered.

WET Activities (page): 144,219,382,421

#### Constancy and Change

4.6.4 Observe and describe that some features of things may stay the same even when other features change.

WET Activities (page): 99,171

#### The Nature of Science and Technology

Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.

#### The Scientific View of the World

5.1.1 Recognize and describe that results of similar scientific investigations may turn out differently because of inconsistencies in methods, materials, and observations\*.

\*observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.

WET Activities (page): 30, 144, 201, 242, 373, 421

#### Scientific Inquiry

5.1.2 Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.

WET Activity (page): 289

#### The Scientific Enterprise

5.1.3 Explain that doing science involves many different kinds of work and engages men, women, and children of all ages and backgrounds.

**WET Activities (page):** 85, 93, 133, 144, 182, 186, 11, 196, 242, 260, 267, 274, 293, 322, 344, 348, 353, 360, 382

#### Technology and Science

5.1.4 Give examples of technology, such as telescopes, microscopes, and cameras, that enable scientists and others to observe things that are too small or too far away to be seen without them and to study the motion of objects that are moving very rapidly or are hardly moving.

WET Activities (page): 72, 293, 344, 360

5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.

WET Activities (page): 254, 267, 344, 348, 360, 373, 382, 407, 421, 460

5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.

WET Activities (page): 133, 144, 186, 219, 232, 267, 316, 322, 344, 348, 407

#### **Scientific Thinking**

Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.

#### Computation and Estimation

5.2.1 Multiply and divide whole numbers\* mentally, on paper, and with a calculator.

WET Activities (page): 186, 196, 238, 271, 293, 307, 328, 344,

5.2.2 Use appropriate fractions and decimals when solving problems.

\*whole number: 0,1,2,3, etc.

**WET Activities (page):** 30, 171, 186, 196, 212, 238, 271, 293, 307, 328, 344,

#### Manipulation and Observation

5.2.3 Choose appropriate common materials for making simple mechanical constructions and repairing things.

WET Activities (page): 30, 191, 242, 254, 307, 421, 442, 446, 450

5.2.4 Keep a notebook to record observations and be able to distinguish inferences\* from actual observations.

**WET Activities (page):** 19, 25, 30, 47, 79, 133, 157, 161, 182, 186, 212, 271, 307, 316, 348, 373, 382, 425

Use technology, such as calculators or spreadsheets, in determining area and volume from linear dimensions. Find area\*, volume\*, mass\*, time, and cost, and find the difference between two quantities of anything.

\*inference: a train of logic based on observations, leading to an explanation

mass: the amount of matter in an object

\*matter: anything that has mass and takes up space

WET Activities (page): 212, 271, 293, 328

#### Communication Skills

5.2.6 Write instructions that others can follow in carrying out a procedure.

WET Activity (page): 43

5.2.7 Read and follow step-by-step instructions when learning new procedures.

WET Activities (page): 25, 30, 35, 43, 201, 212, 328, 348

<sup>\*</sup>area: a measure of the size of a two-dimensional region

<sup>\*</sup>volume: a measure of the size of a three-dimensional object

#### Critical Response Skills

5.2.8 Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.

WET Activities (page): 25, 30, 201, 232, 382

#### Standard 3

#### The Physical Setting

Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion\*, and energy\*.

#### The Earth and the Processes That Shape It

5.3.4 Investigate that when liquid water disappears it turns into a gas\* (vapor) mixed into the air and can reappear as a liquid\* when cooled or as a solid\* if cooled below the freezing point of water.

**WET Activities (page):** 25, 35, 43, 47, 50, 66, 144, 161, 182, 201, 373, 392

5.3.5 Observe and explain that clouds and fog are made of tiny droplets of water.

WET Activities (page): 50, 161, 182, 201,

5.3.6 Demonstrate that things on or near Earth are pulled toward it by Earth's gravity\*.

WET Activities (page): 30, 99, 157, 161, 242, 450

#### Matter and Energy

5.3.8 Investigate, observe, and describe that heating and cooling cause changes in the properties of materials, such as water turning into steam by boiling and water turning into ice by freezing. Notice that many kinds of changes occur faster at higher temperatures\*.

**WET Activities (page)**: 25, 35, 43, 47, 50, 66, 144, 157, 161, 182, 201, 373, 392

5.3.9 Investigate, observe, and describe that when warmer things are put with cooler ones, the warm ones lose heat\* and the cool ones gain it until they are all at the same temperature. Demonstrate that a warmer object can warm a cooler one by contact or at a distance.

**WET Activities (page):** 66, 144, 373

5.3.10 Investigate that some materials conduct\* heat much better than others, and poor conductors can reduce heat loss.

\*temperature: a measure of average heat energy that can be measured by using a thermometer \*heat: a form of energy

\*conduction: the movement of heat through matter

WET Activity (page): 373

#### Forces of Nature

5.3.11 Investigate and describe that changes in speed\* or direction of motion of an object are caused by forces\*. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.

**WET Activities (page):** 99, 196, 242

5.3.12 Explain that objects move at different rates, with some moving very slowly and some moving too quickly for people to see them.

WET Activity (page): 25

5.3.13 Demonstrate that Earth's gravity pulls any object toward it without touching it

\*speed: the rate per unit time at which an object moves

\*force: a push or a pull that can cause a change in the motion of an object

WET Activities (page): 30, 99, 242, 450

#### Standard 4

#### The Living Environment

Students learn about an increasing variety of organisms — familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.

#### Diversity of Life

5.4.2 Observe and describe that some living things consist of a single cell that needs food, water, air, a way to dispose of waste, and an environment in which to live.

**WET Activities (page):** 63, 66, 76, 99, 122, 161, 186, 238, 322, 344, 348, 382, 403

#### Interdependence of Life and Evolution

5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.

WET Activities (page): 99, 122, 174, 201, 238, 348

5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.

WET Activity (page): 99, 122, 166, 316, 322, 344, 348

5.4.6 Recognize and explain that most microorganisms do not cause disease and many are beneficial.

WET Activity (page): 85

5.4.7 Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.

**WET Activities (page):** 99, 122, 201

#### Standard 5

#### The Mathematical World

Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies becomes important.

#### Numbers

5.5.1 Make precise and varied measurements and specify the appropriate units.

**WET Activities (page):** 30, 63, 79, 133, 186, 196, 201, 212, 271, 293, 307, 328, 373

#### Reasoning and Uncertainty

5.5.7 Explain that predictions can be based on what is known about the past, assuming that conditions are similar.

WET Activities (page): 133, 186, 196, 289, 293, 454

5.5.8 Realize and explain that predictions may be more accurate if they are based on large collections of objects or events.

WET Activities (page): 144, 186, 196, 293

#### Standard 6

#### **Common Themes**

Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result.

#### Systems

5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.

WET Activities (page): 99, 144, 157, 161, 232, 316, 328, 348, 360, 450

#### Models and Scale

Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representation can never be exact in every detail.

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**WET Activities (page):** 25, 72, 144, 171, 186, 238, 274, 289, 293, 307, 382, 407, 421, 425, 454

#### Constancy and Change

5.6.4 Investigate, observe, and describe that things change in steady, repetitive, or irregular ways, such as toy cars continuing in the same direction and air temperature reaching a high or low value. Note that the best way to tell which kinds of changes are happening is to make a table or a graph of measurements.

**WET Activities (page):** 54, 79, 99, 144, 166, 171, 182, 196, 293, 316, 373, 407